

(27 October 2021)

Position announcement (2021-06 GWaves)



PhD student in the project Transregio CRC-181 "Energy Transfers in Atmosphere and Ocean"

The Leibniz Institute of Atmospheric Physics e.V. at the University of Rostock (IAP) conducts research in physics of the mesosphere and lower thermosphere in close collaboration with national and international partners. Besides studying specific processes in this region, our research also connects to climate change and to the role of atmospheric forcing on space weather.

The IAP offers a 3-year **PhD student** position in the Optical Soundings Department beginning as soon as possible. The salary is according to class EG 13 TV-L, Tarifgebiet Ost (66 %). National and international candidates who fulfill the requirements for temporal contracts can be considered according to § 2 WissZeitVG.

Tasks: Within the framework of the GRF research project CRC-181 "Energy Transfers in Atmosphere and Ocean" (www.trr-energytransfers.de), the properties of gravity waves will be analyzed with different methods to compare and validate newly developed parameterizations. Measurements with modern Doppler wind and temperature lidar systems will be performed and analyzed. These measurements will be compared with radar measurements and numerical simulations (e.g., using IAP's global circulation model called KMCM¹). The aim is to use these results to validate gravity wave parameterizations developed in other TRR subprojects. The tasks will include:

- Conducting and processing of lidar measurements in Kühlungsborn and [ALOMAR](#) (Northern Norway)
- Gravity wave analyses on temperature and wind measurements,
- Comparison with other data sets
- Development and assessment of physical concepts for the interpretation of results.

Requirements:

- A master's degree in physics, meteorology, mathematics, or a related subject is required.
- Solid understanding of scientific programming and data analysis (e.g., Python, Matlab, C++, IDL, or Fortran).
- Knowledge in optical remote sensing and/or the geophysical interpretation of data is preferred.
- A strong interest in science, as well as a high level of self-organization and devotion.

¹ Kühlungsborn Mechanistic Circulation Model

We provide an appealing workplace near the Baltic Sea, with state-of-the-art technology and an excellent involvement in international research. Working conditions are in accordance with the public service's tariff agreement (TV-L).

Through its graduate school, yearly winter schools, and frequent exchange amongst members of other subprojects, the student will be exposed to a comprehensive training and networking in the scientific community.

The IAP is in favor of family-friendly human resource policies. Its goal is to enhance women's engagement in areas where they are under-represented. Women are specifically encouraged to apply. The IAP also strives to increase the number of people with disabilities who are employed.

Applicants are asked to submit: letter of intention, curriculum vitae, copy of educational certificates, and at least two references. The code number **2021-06 GWaves** should be included in the application. The position will be open until a suitable candidate is found. The documents, preferably in a single PDF document, should be sent electronically to Mrs. Angelika Kurreck (kurreck@iap-kborn.de).

By submitting the application, the applicant consents to the processing of his/her personal data for the purpose of the application process.

Application and travel expenses are not reimbursed.

For further information, please visit www.iap-kborn.de or contact Dr. Michael Gerding

Email: gerding@iap-kborn.de .

